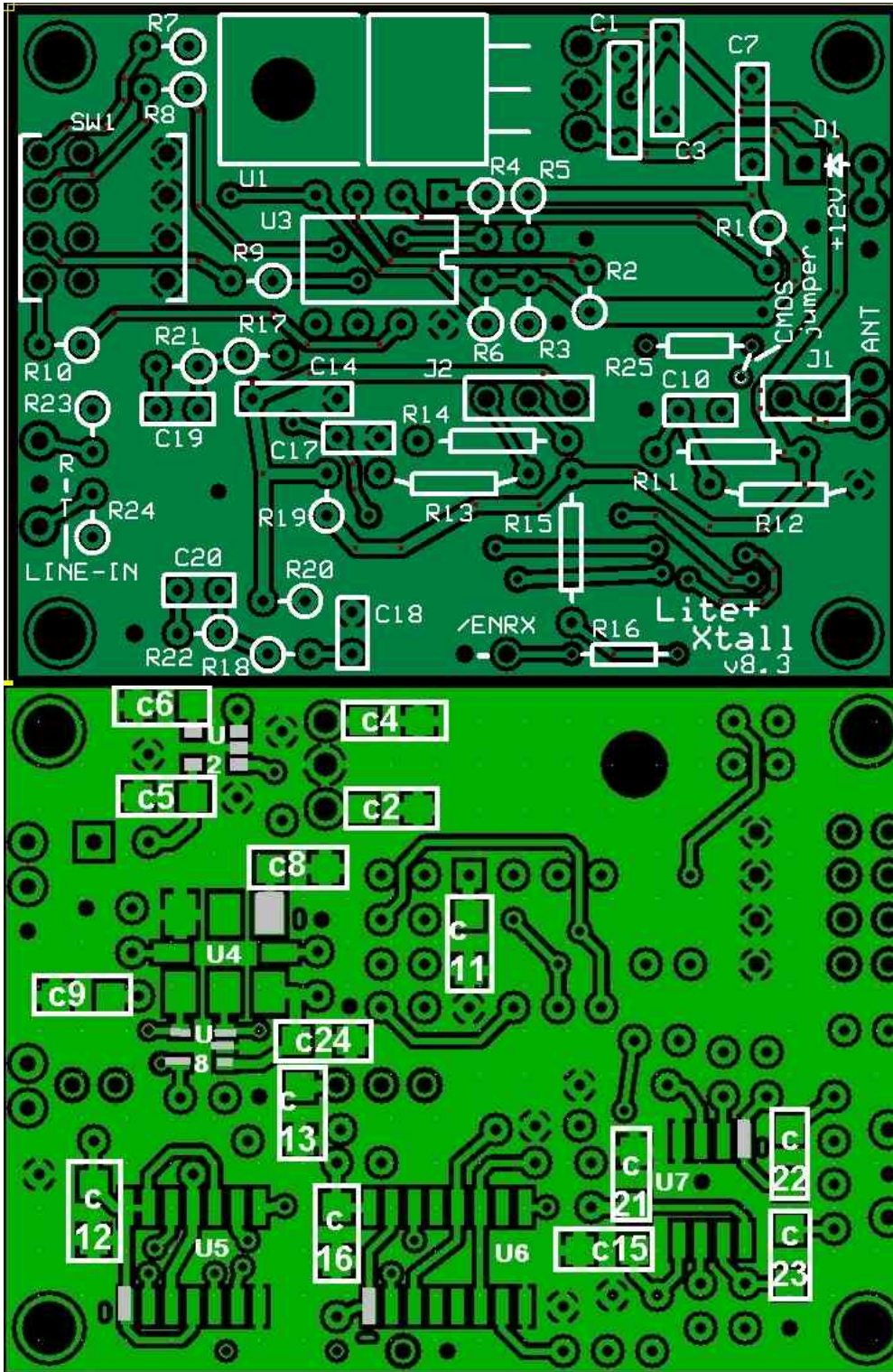
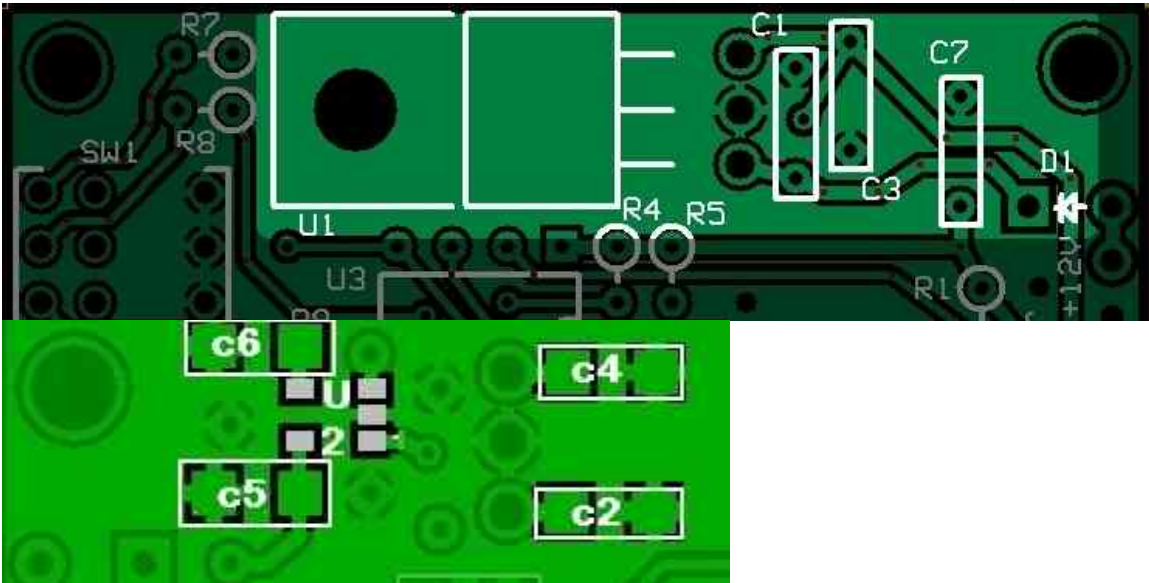
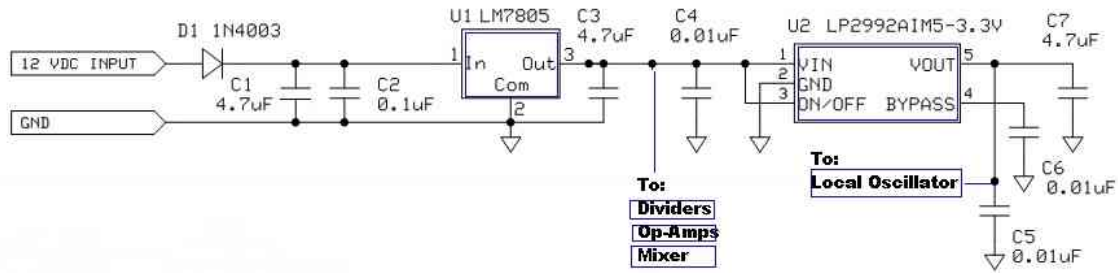


Main Board



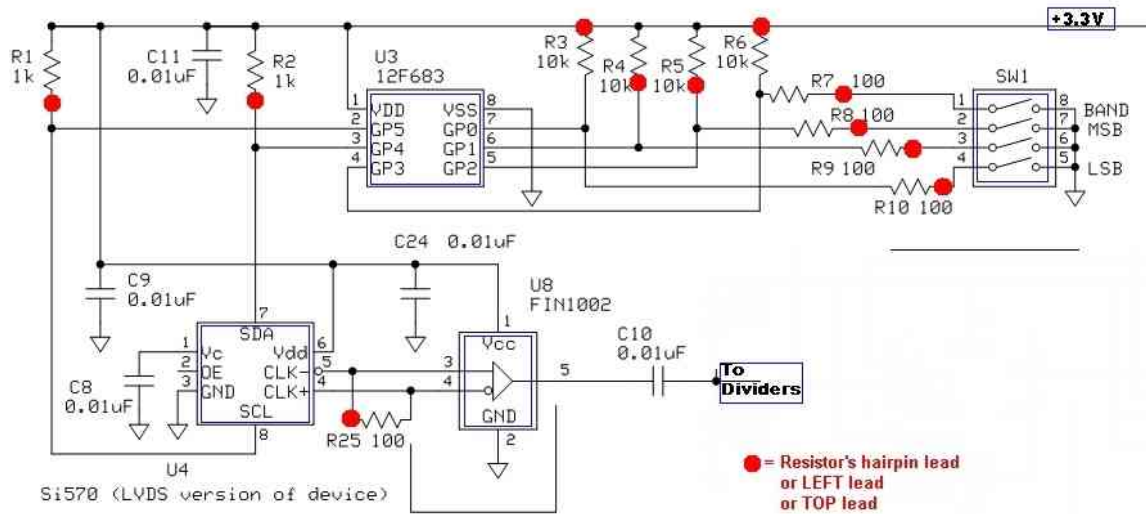
Power Supply



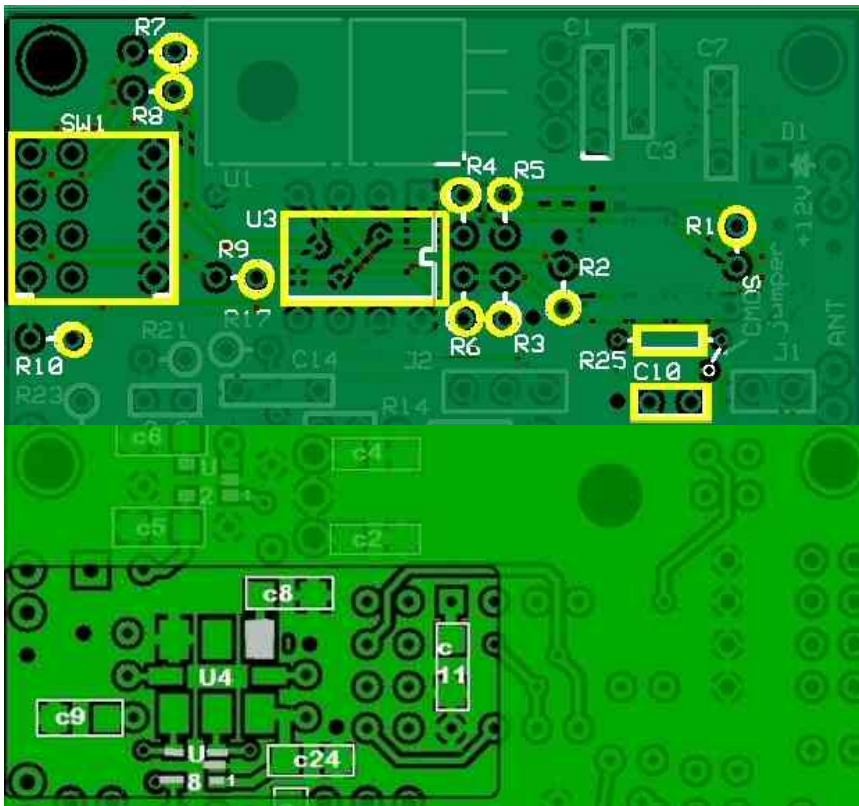
Check	Designation	Component	Type	Notes
	U2	<a href="#">LP2992AIMS-3.3V</a>	SOT-23 3.3v Regulator	(bottom)
	C02	0.1 uF	SMT 1206	(bottom) At pin 1 pad of U1
	C04	0.01 uF	SMT 1206	(bottom)
	C05	0.01 uF	SMT 1206	(bottom)
	C06	0.01 uF	SMT 1206	(bottom)
	U1	<a href="#">LM7805</a>	TO-220 5 volt regulator	(top)
	D1	1N4003	Diode	
	C01	4.7 uF	ceramic	
	C03	4.7 uF	ceramic	
	C07	4.7 uF	ceramic	
	misc	shorting wire		for /ENRX grounding

Test	Expected	Measured
Current	3.1 mA	
5 Volt rail	5 Vdc	
3.3 Volt rail	3.3 Vdc	

Local Oscillator



To use CMOS version of Si570:  
 Remove R25 and U8 from circuit board  
 and jumper between hole of R25  
 and hole connected to U8 pin 5

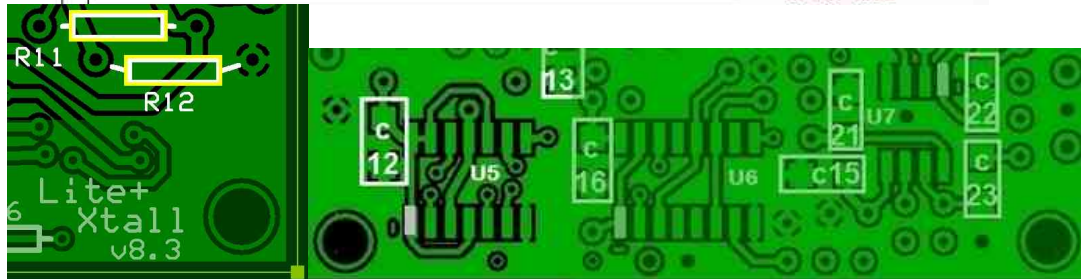
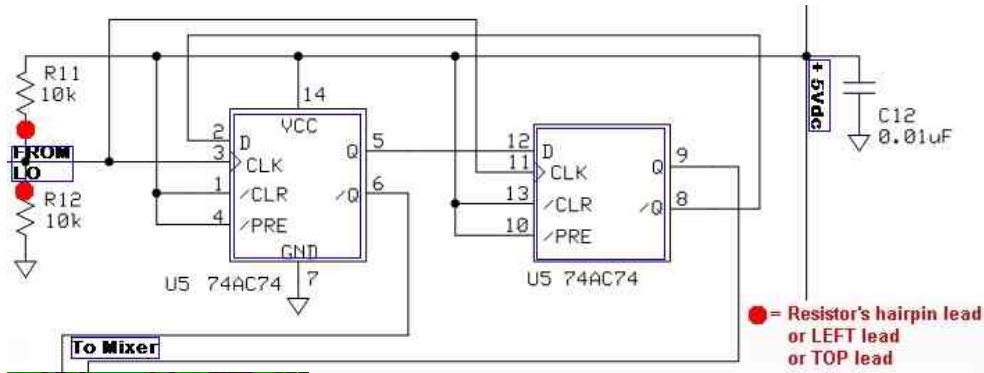




Check	Designation	Component	Type	Notes
	U8	<a href="#">FIN1002</a>	SOT-23 Diff LVDS Rcvr	(bottom)
	U4	<a href="#">SI570 LVDS</a>	Oscillator	(bottom)not from Tony
	C08	0.01 uF	SMT 1206	(bottom)
	C09	0.01 uF	SMT 1206	(bottom)
	C11	0.01 uF	SMT 1206	(bottom)
	C24	0.01 uF	SMT 1206	(bottom)
	SW1	4-pos dip switch	8 pin Dip Switch%	
	R01	1k Ohm	Resistor 1%	hairpin (north-south)
	R02	1k Ohm	Resistor 1%	Hairpin (south - North)
	R03	10k Ohm	Resistor 1%	Hairpin (south - North)
	R04	10k Ohm	Resistor 1%	hairpin (north-south)
	R05	10k Ohm	Resistor 1%	hairpin (north-south)
	R06	10k Ohm	Resistor 1%	Hairpin (south - North)
	R07	100 Ohm	Resistor 1%	hairpin (east- west)
	R08	100 Ohm	Resistor 1%	hairpin (east- west)
	R09	100 Ohm	Resistor 1%	hairpin (east- west)
	R10	100 Ohm	Resistor 1%	hairpin (east- west)
	R25	100 Ohm	Resistor 1%	flat - ignore for CMOS SI570
	J1	2-pin header		
	J2	3 pin header		
	C10	0.01 uF	ceramic	
	U3	<a href="#">12F683</a>	CPU and socket	(top)

Test	Expected	Measured
Current	93 mA	
SW1 poles (on)	< 0Vdc	
SW1 poles (off)	3.3 Vdc	
Osc output (SW1 = "0100") freq	28.184 MHz	
Osc output (SW1 = "0100") freq	5.5 V p-p	

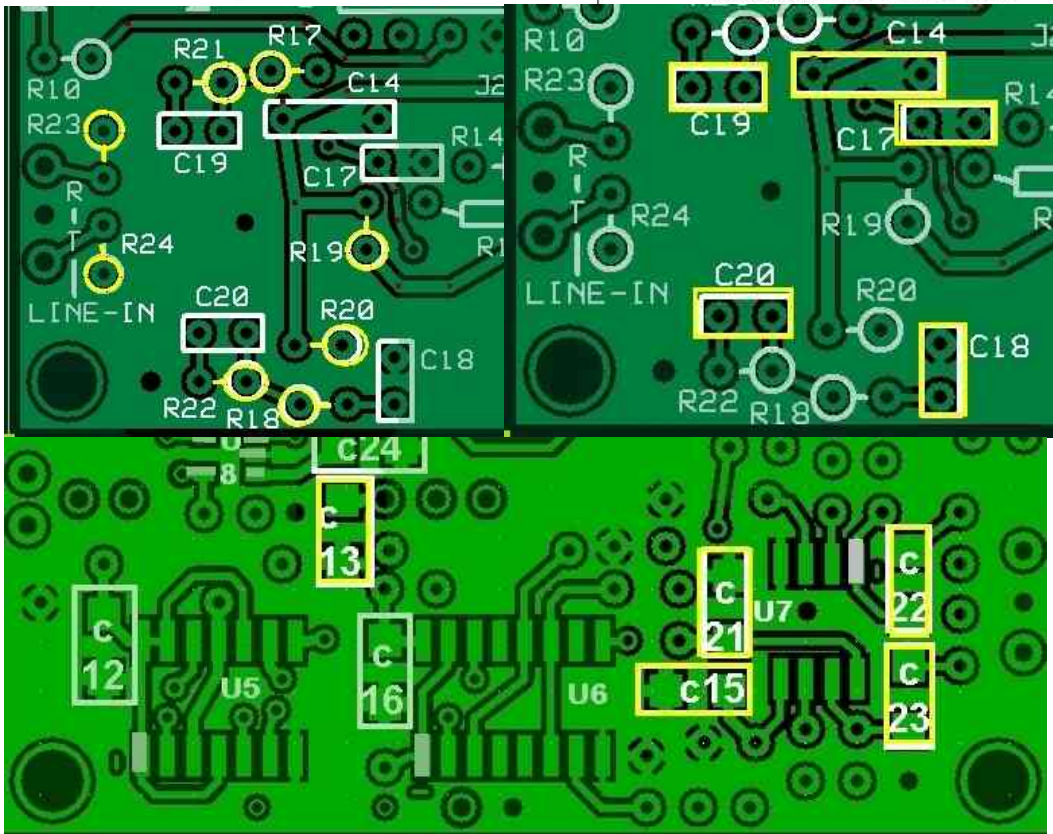
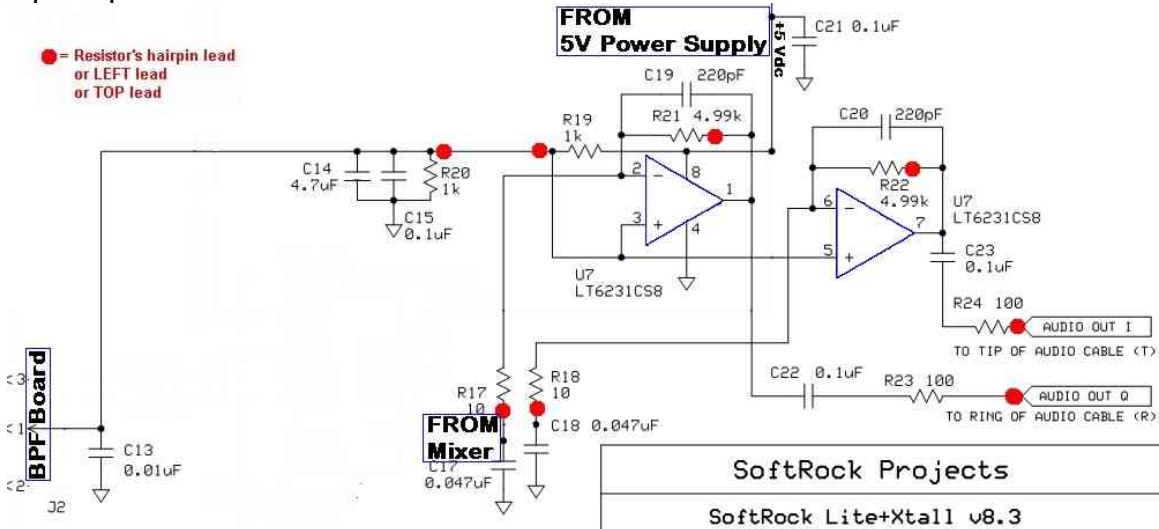
Dividers



Check	Designation	Component	Type	Notes
	C12	0.01 uF	SMT 1206	(bottom)
	U5	<a href="#">74AC74</a>	SOIC-14 SMT Dual FF	(bottom)
	R11	10k Ohm	Resistor 1%	flat
	R12	10k Ohm	Resistor 1%	flat

Test	Expected	Measured
Current	98.4 mA	
S0 and S1 Outputs	quadrature	
S0 and S1 Outputs	"square"	
S0 and S1 Outputs	4.5 V p-p	
U5, Pins 2, 3, 5, 6, 8, 9, 11, 12	2.5 Vdc	
U5, Pins 1, 4, 10, 13, 14	5 Vdc	
(topside) hairpin of R11 or R12	2.5 Vdc	
U5 Pin 7	0 Vdc	

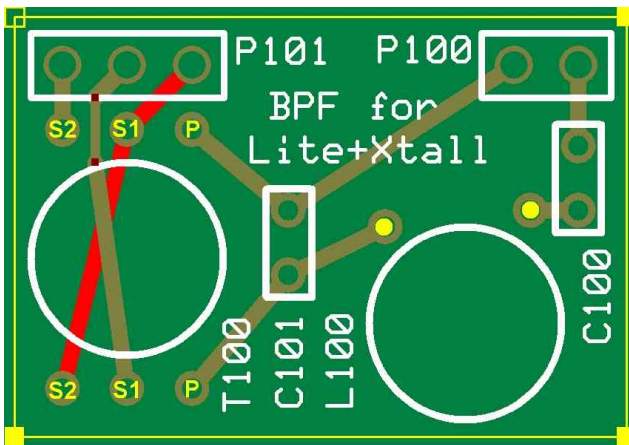
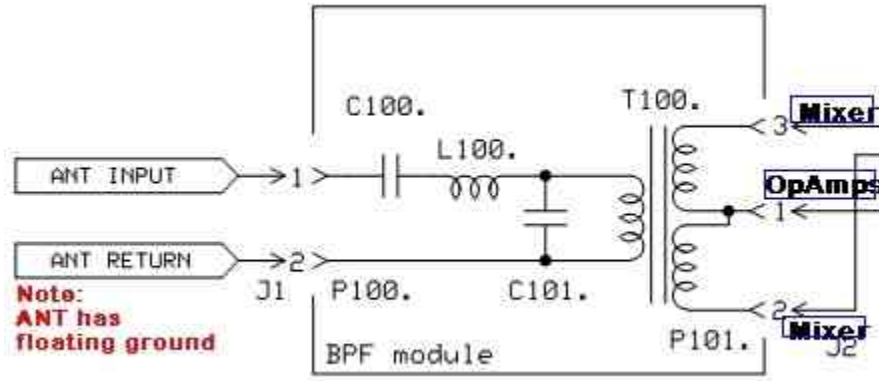
Op-Amps



Check	Designation	Component	Type	Notes
	C13	0.01 uF	SMT 1206	(bottom)
	C15	0.1 uF	SMT 1206	(bottom) Adjacent to U7
	C21	0.1 uF	SMT 1206	(bottom) Adjacent to U7
	C22	0.1 uF	SMT 1206	(bottom) Adjacent to U7
	C23	0.1 uF	SMT 1206	(bottom) Adjacent to U7
	R18	10 Ohm	Resistor 1%	hairpin (west-east)
	U7	<a href="#">LT6231</a>	SOIC-8 OpAmp	(bottom)
	R17	10 Ohm	Resistor 1%	hairpin (west-east)
	R19	1k Ohm	Resistor 1%	Hairpin (south - North)
	R20	1k Ohm	Resistor 1%	hairpin (east- west)
	R21	4.99k Ohm	Resistor 1%	hairpin (east- west)
	R22	4.99k Ohm	Resistor 1%	hairpin (east- west)
	R23	100 Ohm	Resistor 1%	hairpin (north-south)
	R24	100 Ohm	Resistor 1%	Hairpin (south - North)
	C14	4.7 uF	ceramic	
	C17	0.047 uF	ceramic	
	C18	0.047 uF	ceramic	
	C19	220 pF	ceramic	
	C20	220 pF	ceramic	

Test	Expected	Measured
Current	108 mA	
U7, Pins 1, 2, 3, 5, 6 & 7	2.5 Vdc	
U7 Pin 4	0 Vdc	
U7 Pin 8	5 Vdc	
R22 (no Bridge to ground)	2.5 Vdc	
R21 (no Bridge to ground)	2.5 Vdc	
R22 (with R18 bridged to ground thru 10k resistor)	3.75 Vdc	
R21(with R17 bridged to ground thru 10k resistor)	3.75 Vdc	
Tip (with 10 mV AF at R18)	5 Vp-p	
Ring (with 10 mV AF at R17)	5 Vp-p	

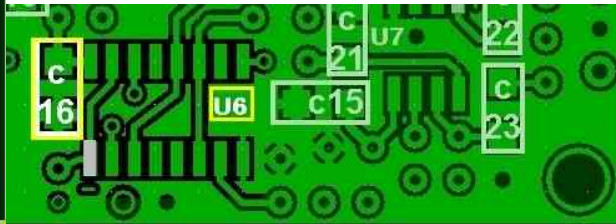
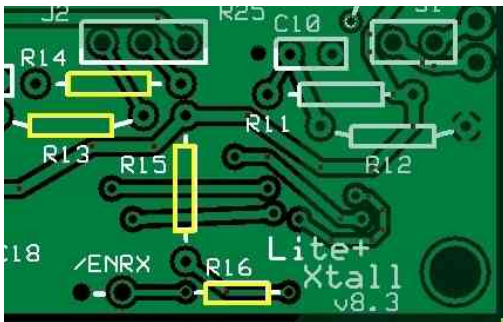
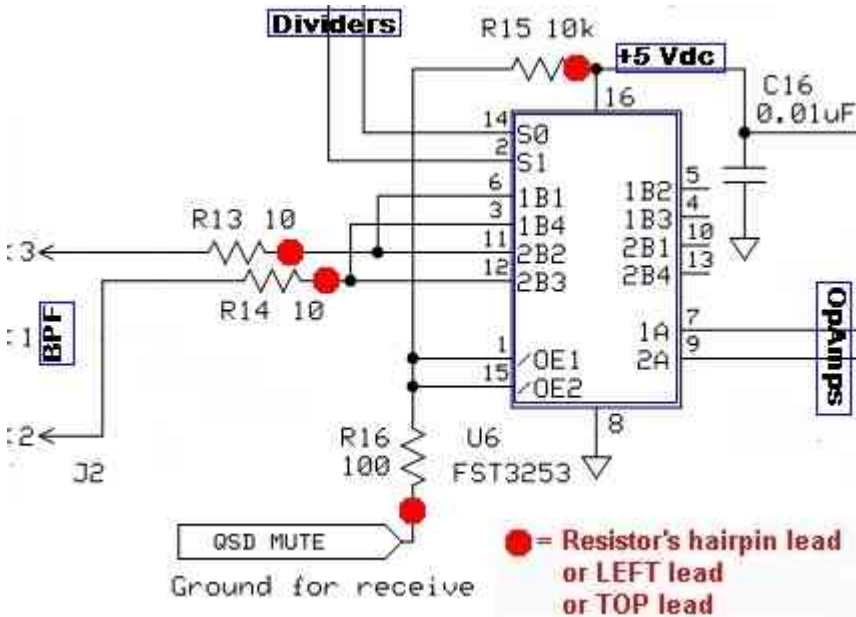
BPF(s)





Check	Designation	Component	Type	Notes
	BPF-Board-1	Board	BPF Board	BPF-160
	L101-1	1.4 uH pri	T30-2 red #30	BPF-160 18T(pri); 9T bifilar
	C100-1	390 pF	ceramic	BPF-160
	C101-1	5600 pF	ceramic	BPF-160
	P100-1	2 pin socket		BPF-1 thru 4
	P101-1	3 pin socket		BPF-1 thru 4
	L100-1	18.7 uH	T-30-2 red #30	BPF-160 - 66Turns
	BPF-Board-2	Board	BPF Board	BPF-80/40
	L100-2	1.6 uH	T25-2 red #30	BPF-80/40 - 22 turns
	L101-2	1.2 uH pri	T25-2 red #30	BPF-80/40 18T(pri); 9T bifilar
	C100-2	560 pF	ceramic	BPF-80/40
	C101-2	600 pF	ceramic	BPF-80/40
	BPF-Board-3	Board	BPF Board	BPF-30/20/17
	L100-3	0.78 uH	T25-6 yellow #30	BPF-30/20/17 - 17 turns
	L101-3	0.6 uH pri	T25-6 yellow #30	BPF-30/20/17 14T(pri); 7T bifilar
	C100-3	180 pF	ceramic	BPF-30/20/17
	C101-3	220 pF	ceramic	BPF-30/20/17
	BPF-Board-4	Board	BPF Board	BPF-15/12/10
	L100-4	0.53 uH	T25-6 yellow #30	BPF-15/12/10 - 14 turns
	L101-4	0.13 uH pri	T25-6 yellow #30	BPF-15/12/10 7T(pri); 4T bifilar
	C100-4	82 pF	ceramic	BPF-15/12/10
	C101-4	330 pF	ceramic	BPF-15/12/10

Mixer



Check	Designation	Component	Type	Notes
	C16	0.01 uF	SMT 1206	(bottom)
	U6	<a href="#">FST3253</a>	SOIC-14 SMT Mixer	(bottom)
	R13	10 Ohm	Resistor 1%	flat
	R14	10 Ohm	Resistor 1%	flat
	R15	10k Ohm	Resistor 1%	flat
	R16	100 Ohm	Resistor 1%	flat

Test	Expected	Measured
Current	109 mA	
U6 Pins 1 & 15	50 mVdc	
U6 Pins 2, 7, 9, & 14	2.5 Vdc	
U6 Pin 16	5 Vdc	
U6 Pin 8	0 Vdc	
Rocky (with RF injected or with Antenna and BPF)	signal in spectrum view	

Completed

